UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,735	12/27/2001	Blair T. Mackiewich	A363 0019 GNM/bds	1957

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OYEN, WIGGS, GREEN & MUTALA LLP
480 - THE STATION
601 WEST CORDOVA STREET
VANCOUVER, BC V6B 1G1
CANADA

EXAMINER
DAVIS, CYNTHIA L

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)
	10/026,735	MACKIEWICH ET AL.
	Examiner	Art Unit	
	Cynthia L. Davis	2616	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-13_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-13_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _10/26/2006_.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1.   Claims 1, 12, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by

Besler.

Regarding claim 1, a method for routing data frames to a bridge port in a bridge

device having a shared forwarding database, the method comprising: creating an entry

in the shared forwarding database, the entry indicating that data addressed to an

address should be source routed is disclosed in Besler, column 10, lines 14-16 (the

switching table is the shared forwarding database). Receiving a data frame addressed

to the address; determining that the data frame requires source routing based on the

entry in the shared forwarding database is disclosed in column 10, lines 18-20 (when

data is received for the destination later, it is routed along the virtual path of the source

route, which is stored in the table). Reading source routing data from the data frame is

disclosed in column 2, lines 48-50 (the source and destination address are source

routing data). Identifying a port corresponding to the source routing data; and, sending

the data frame to the identified port is disclosed in column 3, lines 1-3 (an out-port is mapped for the virtual path).

Regarding claim 12, receiving data from the address; determining that data sent to the address requires source routing based on the entry in the shared forwarding database; and, not dynamically updating the entry in the shared forwarding database in response to determining that data sent to the address requires source routing column 10, lines 18-20 (when data is received for the destination later, it is routed along the virtual path of the source route, which is stored in the table; the VP is not changed upon the arrival of future data).

Regarding claim 13, a plurality of bridge ports is disclosed in Besler, column 3, lines 2-3 (there are multiple ports). A shared forwarding database is disclosed in column 3, lines 1-2 (the switching table, or connection database). The shared forwarding database comprising a plurality of first records, each first record associating an address with one of the bridge ports is disclosed in Besler, column 3, lines 1-3 (the switching table matches VP IDs to input and output ports). At least one second record, the second record associating an address with information indicating that data sent to the address of the second record requires source routing is disclosed in column 10, lines 10-20 (disclosing the switching table mapping connections to VP IDs); the bridge being configured to respond to receipt of data addressed to the address of the second record by: determining from the second record that the data requires source routing; reading source routing information from the data; and forward the data to one of the

bridge ports based upon the source routing information is disclosed in column 10, lines

10-20.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 2-3 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Besler in view of Dobbins.

Regarding claim 2, the data frame comprises a VLAN tag and reading source

routing data from the data frame comprises reading the VLAN tag is missing from

Besler. However, Dobbins discloses in column 6, lines 18-34, routing packets by a

VLAN tag. It would have been obvious to one skilled in the art at the time of the

invention to use VLAN tags to route the frames in the system of Besler. The motivation

would be identify to which VLAN the packets belong (Dobbins, column 6, lines 23-25).

Regarding claims 3, each of the ports is associated with a port VLAN identifier is

disclosed in Besler, column 6, lines 50-51. Identifying a port corresponding to the

source routing data comprises identifying a port having a port VLAN identifier which is

the same as a VID from the VLAN tag is missing from Besler. However, Dobbins

discloses in column 6, lines 18-34, routing a packet out of a specific port based on a

VLAN tag. It would have been obvious to one skilled in the art at the time of the

invention to use VLAN tags to route the frames in the system of Besler. The motivation would be identify to which VLAN the packets belong (Dobbins, column 6, lines 23-25).

Regarding claim 8, identifying a bridge port corresponding to the source routing data comprises identifying a bridge port having a port VLAN identifier equal to a VID specified in the VLAN tag is missing from Besler. However, Dobbins discloses in column 6, lines 18-34, tagging packets with a VLAN-ID and routing them to a port that matches the VLAN-ID. It would have been obvious to one skilled in the art at the time of the invention to use VLAN-IDs to route the frames in the system of Besler. The motivation would be identify to which VLAN the packets belong (Dobbins, column 6, lines 23-25).

Regarding claim 9, receiving data at the bridge port and tagging the data with a VLAN tag comprising a VID determined by the port VLAN identifier is missing from Besler is missing from Besler. However, Dobbins discloses in column 6, lines 18-34, tagging packets with a VLAN-ID and routing them to a port that matches the VLAN-ID. It would have been obvious to one skilled in the art at the time of the invention to use VLAN-IDs to route the frames in the system of Besler. The motivation would be identify to which VLAN the packets belong (Dobbins, column 6, lines 23-25).

Regarding claim 10, identifying a bridge port corresponding to the source routing data comprises identifying a bridge port having a port VLAN identifier corresponding to a VID specified in the VLAN tag according to a correspondence maintained in the bridge is missing from Besler. However, Dobbins discloses in column 6, lines 18-34, tagging packets with a VLAN-ID and routing them to a port that matches the VLAN-ID according

an association of ports to VLANs that is maintained in the bridge. It would have been

obvious to one skilled in the art at the time of the invention to use VLAN-IDs to route the

frames in the system of Besler. The motivation would be identify to which VLAN the

packets belong (Dobbins, column 6, lines 23-25).

Regarding claim 11, receiving data at a bridge port and tagging the data with a

VLAN tag comprising a VID equal to a port VLAN identifier associated with the bridge

port according to the correspondence maintained in the bridge is missing from Besler.

However, Dobbins discloses in column 6, lines 18-34, tagging packets with a VLAN-ID

and routing them to a port that matches the VLAN-ID according an association of ports

to VLANs that is maintained in the bridge. It would have been obvious to one skilled in

the art at the time of the invention to use VLAN-IDs to route the frames in the system of

Besler. The motivation would be identify to which VLAN the packets belong (Dobbins,

column 6, lines 23-25).

3.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Besler in

view of Ervin.

Regarding claim 4, the address comprises a MAC address of a device and

determining that the data frame requires source routing comprises looking up the MAC

address in the shared forwarding database is missing from Besler. However, Ervin

discloses in figure 5 and column 7, lines 41-60 a system that looks up MAC addresses

in a database to determine source routing. It would have been obvious to one skilled in

the art at the time of the invention to use the MAC lookup of Ervin in the system of

Besler. The motivation would be to load balance the source routed connections (see
Ervin, column 2, lines 60-63).

4.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Besler in
view of Klaus.

Regarding claim 5, applying one or more inbound rules to the data frame before
determining that the data frame requires source routing is missing from Besler.
However, Klaus discloses in column 3, line 66-column 4, lines 24 a router that uses an
inbound rule allowing source routed messages that is applied to all frames in the
network before source routing needs to be applied. It would have been obvious to one
skilled in the art at the time of the invention to apply inbound rules to incoming frames in
the system of Besler. The motivation would be to prevent hacking (Klaus, column 3,
lines 66-67).

5.   Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Besler in
view of Klaus in further view of Weaver.

Regarding claim 6, applying one or more outbound rules to the data frame after
identifying a port corresponding to the source routing data is missing from Besler.
However, Weaver discloses in column 2, lines 28-29, using outbound traffic filters (or
rules) in a network device. It would have been obvious to one skilled in the art at the
time of the invention to use outbound rules in the system of Besler. The motivation
would be to ensure timely delivery of critical data.

6.   Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Besler in
view of Weaver.

Regarding claim 7, applying one or more outbound rules to the data frame after identifying a port corresponding to the source routing data is missing from Besler. However, Weaver discloses in column 2, lines 28-29, using outbound traffic filters (or rules) in a network device. It would have been obvious to one skilled in the art at the time of the invention to use outbound rules in the system of Besler. The motivation would be to ensure timely delivery of critical data.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia L. Davis whose telephone number is (571) 272-3117. The examiner can normally be reached on 8:30 to 6, Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CLD

5/10/2006

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600